

REMARKS

This Amendment is in response to the Office Action dated July 8, 2008 ("OA"). In the Office Action, claim 13 was objected to and claims 1-2, 5-15, 23-24 and 29-31 were rejected under 35 U.S.C. § 103. By this Amendment, claims 1, 6 and 13 are amended, claims 32-42 are added and claim 24 is canceled. Currently pending claims 1-2, 5-15, 23 and 29-42 are believed allowable, with claims 1, 33 and 41 being independent claims.

CLAIM OBJECTIONS:

Claim 13

Claim 13 was objected to because "Claim 1 does not disclose a step of determination of the propagation of annotation. Claim 1 simply discloses 'propagating said input annotation.....'" OA, pp. 3.

By this Amendment, claim 13 is modified to recite, "The method of claim 1, wherein the propagation of annotations is determined deterministically or probabilistically and on the use of models for each annotation or for joint annotations." Claim 1 thus provides antecedent basis for claim 13.

Amendment of claim 13 is not made to overcome the cited documents or for reasons of patentability.

The Applicants thank the Examiner for pointing out this discrepancy.

CLAIM REJECTIONS UNDER 35 USC §103:

Claims 1, 6, 10 and 23 were rejected under 35 U.S.C. § 103 as unpatentable over U.S. Patent No. 6,804,684 to Stubler et al.

("Stubler") in view of U.S. Patent No. 6,043,819 to LeBrun et al. ("LeBrun") and further in view of U.S. Patent No. 6,697,799 to Neal et al. ("Neal"). OA, pp. 3.

Claims 2 and 5 were rejected under 35 U.S.C. § 103 as unpatentable over Stubler and LeBrun in view of Neal and further in view of U.S. Patent No. 6,718,063 to Lennon et al. ("Lennon"). OA, pp. 8.

Claims 7, 8, 11, 13-15 and 29-31 were rejected under 35 U.S.C. § 103 as unpatentable over Stubler and LeBrun in view of Neal and further in view of U.S. Patent No. 5,963,670 to Lipson et al. ("Lipson"). OA, pp. 10.

Claims 9 and 12 were rejected under 35 U.S.C. § 103 as unpatentable over Stubler and LeBrun in view of Neal and further in view of U.S. Patent No. 6,118,888 to Chino et al. ("Chino"). OA, pp. 16.

Claim 24 was rejected under 35 U.S.C. § 103 as unpatentable over Stubler and LeBrun in view of Neal and further in view of U.S. Patent No. 6,816,847 to Toyama ("Toyama"). OA, pp. 18.

It is well settled that "rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." In re Kahn, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336, quoted with approval in KSR Int'l Co. v. Teleflex Inc., 127 S. Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007).

Claim 1

Claim 1 is amended to recite the subject matter of claim 1 as presented in the Amendment filed October 2, 2007 and claim 24 as presented in the Amendment filed May 1, 2008.

It is noted that claim 24 as presented in the Amendment filed May 1, 2008 recites the same subject matter as claim 24 as presented in the Amendment filed October 2, 2007. Therefore, claim 1 as currently presented recites the same subject matter as claim 24 as presented in the Amendment filed October 2, 2007. Because claim 1 as currently presented recites the subject matter of claim 24 as presented in the Amendment filed May 1, 2008, the Examiner's arguments regarding claim 24 are addressed in regards to claim 1 as currently presented.

Claim 1 recites, in part, "wherein the at least one criterion includes a confidence level of the selected examples, the confidence level being inversely proportional to a distance of a new feature of the selected examples from a separating hyperplane in an induced higher dimensional feature space." It is emphasized that claim 1 requires that the confidence level is inversely proportional to a difference. More specifically, claim 1 requires that the distance is of a new feature of the selected examples from a separating hyperplane in an induced higher dimensional feature space.

The Examiner concedes that "Stubler in view of LeBrun does not expressly disclose *wherein the at least one criterion includes a confidence level of the selected examples, the confidence level being inversely proportional to a distance of a new feature of the selected examples from a separating hyperplane in an induced higher dimensional feature space.*" OA, pp. 18.

However, the Examiner alleges that "Neal teaches a *confidence level of the selected examples, the confidence level being inversely proportional to a distance of a new feature of the selected examples.*" OA, pp. 18. In support of this position, the Examiner cites column 11, lines 1-47 of Neal. *Id.*

Column 11, lines 1-47 of Neal state,

The classification confidence system can be designed so that a high confidence score not only reflects confidence that a category is likely to be correct, but also that only one category is likely to be correct. These two aspects can be rated separately. Confidence in a selected category can be associated with an absolute score. If there is a high degree of correlation between an item's description and the description in the knowledge database, this will result in a high absolute score. With the cascading search technique patent, each subsequent search uses broader criteria. As a result, there is lower confidence in the correctness of the result in each subsequent search. The confidence that a returned category is correct can be estimated by assigning a score corresponding to the likelihood of correctness in each technique. In an exact match search, the confidence may be much higher than for a search looking for any word that matches or for a proximity search.

If the confidence is high, then the category retrieved and its confidence can be returned to a user interface or used to classify the item directly. In other words, the category and confidence are compiled 63. If an item has a high confidence level 65 then it can be classified directly 67. If the confidence level is low, then the results can be sent to a user interface 23 for review and selection by an operator 69. The operator selection will then be classified 67. If the confidence level scoring results are not high, then a new search view 71 can be created. For example, if the first view was made up of manufacturer part number and name, the second search view can be supplier part number and name. This can be searched again through a cascading set of search definitions 59 and the results of the search can be scored 73 using scoring weights 75.

A third search view 77 can be presented as well as fourth, fifth and subsequent search views. The results of these search views can also be weighted 79 using the same scoring weights 75 as are applicable to the corresponding search. In one embodiment, results from the comparisons of several different search views can be combined 81 with the weights to develop a composite category scoring and weighting. As described above with respect to the first search view, this consolidated confidence score and category ranking can then be evaluated 63. If there is a high confidence 65, it can be classified directly or for lower confidence results, they can be submitted for human review and selection 69. As can be understood from the above, as a result, the classification engine 15, using the search engine 55, produces a classified item 17. Neal, col. 11, ll. 1-47.

The Applicants respectfully submit that the cited passage of Neal fails to teach or suggest inverse proportionality. Those skilled in the art will appreciate that inverse proportionality between a first quantity and a second quantity means that higher values of the first quantity result in lower values of the second quantity. However, Neal states, "Confidence in a selected category can be associated with an absolute score. If there is a high degree of correlation between an item's description and the description in the knowledge database, this will result in a high absolute score." Neal, col. 11, ll. 5-9. Thus, a higher value for the degree of correlation results in a higher value for the absolute score with which confidence in a selected category is associated. Thus, Neal teaches away from an inverse proportionality between a score associated with confidence and another quantity, namely the correlation between an item's description and the description in the knowledge database.

Furthermore, the cited passage fails to teach or suggest a distance. Therefore, the cited passage clearly cannot teach or

suggest that a confidence level is inversely proportional to a distance.

Additionally, *"a confidence level of the selected examples, the confidence level being inversely proportional to a distance of a new feature of the selected examples"*, which the Examiner alleges to be taught by Neal, is impossible. Those skilled in the art will appreciate that a distance is the quantity of space separating two entities. The distance of only one entity is a concept which does not exist. "A distance of a new feature of the selected examples" is the distance of only one entity, namely a new feature of the selected examples. Thus, "a distance of a new feature of the selected examples" is a concept which does not exist. It follows that it is impossible for a confidence level to be inversely proportional to "a distance of a new feature of the selected examples." Therefore, the Applicants respectfully submit that Neal cannot teach "a confidence level of the selected examples, the confidence level being inversely proportional to a distance of a new feature of the selected examples," as alleged by the Examiner.

The Examiner further alleges,

Neal teaches a classification confidence score which determines the level of confidence in which a category is likely to be correct during classification. If the item has a high confidence, then it can be classified directly. If the confidence level is low the results can be sent to the user interface for review and selection by the operator. Using the broadest reasonable interpretation, the Examiner has determined that the "confidence level" as taught by Neal is analogous with the "ambiguity level" of the current invention. Thus a high confidence score is inversely proportional to distance of the new feature, which determines whether or not to automatically classify the item/category. OA, pp. 18.

The Applicants respectfully submit that the cited passage of Neal does not disclose a distance of the new feature. More specifically, the cited passage clearly fails to teach or suggest that a distance of the new feature determines whether or not to automatically classify the item/category. Therefore, the cited passage of Neal clearly fails to teach or suggest that "a high confidence score is inversely proportional to distance of the new feature, which determines whether or not to automatically classify the item/category" as alleged by the Examiner.

The Examiner further alleges that Toyama teaches "a distance of a new feature of the selected examples from a separating hyperplane in an induced higher dimensional feature space" OA, pp. 19. In support of this position, the Examiner cites column 5, line 47 through column 6, line 50 of Toyama. *Id.* The cited passage is not reproduced herein due to its length.

The Applicants respectfully submit that the cited passage is devoid of any teaching or suggestion of inverse proportionality.

The Examiner further alleges,

As Applicant disclosed within the specification (0008), for SVM classifiers the distance of an unlabeled data-point from the separating hyperplane in the high dimensional feature space could be taken as a measure of uncertainty (alternatively, a measure of confidence in classification) of the data-point. OA, pp. 19.

The passage of the specification cited by the Examiner recites,

SVMs can be used for solving many different pattern classification problems, as taught by V. Vapnik in *Statistical Learning Theory*, Wiley, 1998, and N.

Cristianini and J. Shawe-Taylor in *An Introduction to Support Vector Machines and other Kernel-Based Learning Methods*, Cambridge University Press, 2000. For SVM classifiers the distance of an unlabeled data-point from the separating hyperplane in the high dimensional feature space could be taken as a measure of uncertainty (alternatively, a measure of confidence in classification) of the data-point. A method for using an SVM classifier in the context of relevance feedback searching for video content was taught by Simon Tong and Edward Chang in "Support Vector Machine Active Learning for Image Retrieval," *ACM Multimedia*, 2001. A method for using an SVM classifier for text classification was taught by S. Tong and D. Koller in "Support vector machine active learning with applications to text classification," *Proceedings of the 17th International Conference on Machine Learning*, pages 401-412, June 2000. App., para. [0008] (emphasis added.)

It is noted that paragraph [0008] of the specification as published corresponds to page 3, lines 4-15 of the specification as originally filed.

While the specification states that the distance of an unlabeled data-point from the separating hyperplane in the high dimensional feature space could be taken as a measure of uncertainty, the specification does not state that this distance can only be employed as a measure of uncertainty. It is noted that the language, "could be", clearly expresses a possibility rather than an absolute requirement. Therefore, the Applicants respectfully submit that it is not inherent that Toyama employs a distance of an unlabeled data-point from a separating hyperplane as a measure of uncertainty.

The Examiner further alleges,

Using the broadest interpretation, the Examiner concludes at the time of the invention, one of ordinary skill of the art could modify Neal's teaching with Toyama [sic] teaching of enhancing the learned qualifier in such a way that wherein the at least one criterion includes a confidence

level of the selected examples, the confidence level being inversely proportional to a distance of a new feature of the selected examples from a separating hyperplane in an induced higher dimensional feature space.

Therefore at the time of the invention it would have been obvious to one of ordinary skill in the art to combine Toyama with Stubler, LeBrun and Neal for the benefit of generating a set of images for input into a SVM classifier (col. 1, lines 57-64). OA, pp. 19-20.

The Examiner's basis for combining the two references is only that one of ordinary skill of the art could modify Neal's teaching with Toyama. Such a broad generality is not sufficient.

KSR International requires that an Examiner provide "some articulated reasoning with some rationale underpinning to support the legal conclusion of obviousness." KSR at 1396. An Examiner must "identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does." Id. at 1389. And, the Examiner must make "explicit" this rationale of "the apparent reason to combine the known elements in the fashion claimed," including a detailed explanation of "the effects of demands known to the design community or present in the marketplace" and "the background knowledge possessed by a person having ordinary skill in the art." KSR at 1396. Anything less than such an explicit analysis is not be sufficient to support a prima facie case of obviousness.

Even assuming *arguendo* that the rejection shows obviousness as to why one would combine the alleged prior art cited by the Examiner, it is additionally necessary to show that the alleged prior art teaches or suggests all the claim limitations, including the limitation requiring inverse proportionality, in

order to sustain a rejection under 35 U.S.C. § 103. For the reasons noted above, Stubler, LeBrun, Neal and Toyama each fail to teach or suggest inverse proportionality. Thus, the combination of cited alleged prior art advanced by the Examiner fails to teach or suggest inverse proportionality.

Moreover, as discussed in the Amendment filed October 2, 2007, Neal teaches away from combining its teachings with Toyama. The Examiner has not responded to this argument.

As stated in the October 2, 2007 Amendment:

Neal teaches that "[t]he third element is to classify the new items by comparing the words and symbols associated with each item to those in the knowledge database." Neal, col. 2, ln. 64-67. Neal then clarifies that "[i]n the present invention, a word, token, symbol or descriptive term can be considered as one or more characters used to represent a concept in a language or a specialized subject matter." Neal, col. 3, ln. 6-9. Thus, it is evident that Neal teaches that a search operates on textual data as opposed to the image itself. Furthermore, the confidence score (or confidence level) disclosed by Neal is derived from the result of a search.

Toyama teaches that when training the classifier, ". . . the aspects that the classifier can use may include such image features as: the presence and distribution of various colors; the various geometrical quantities and qualities of segmented parts of an image, such as position, orientation, moments, etc.; coefficients of various transformations of image regions, such as Fourier analysis, Discrete Cosine Transform (DCT), wavelet analysis, etc.; and, higher-level representations of the image. These features are represented numerically as a 'feature vector,' which can be thought of as a series of numeric values that represent the image with respect to its image features." Toyama, col. 5, ln. 51-61. Toyama then clarifies that when analyzing a particular image, "[t]he classifier uses the same feature selection it applied against the set of training images to determine the aesthetic score for the image" Toyama, col. 7, ln. 9-11. Thus, it is evident that Toyama teaches classifying an image based on

graphical properties of an image and numeric representations thereof. It is noted that Toyama teaches that an image may contain text. However, Toyama is devoid of any teaching that images are classified based on the contents or semantic meaning of any text contained therein.

Thus, the confidence score of Neal is derived from a search which operates on textual data. By contrast, Toyama teaches classifying an image based on graphical and numeric data. Thus, the search of Neal and the classification of Toyama are based on disparate data types. Those skilled in the art will appreciate that different types of data (e.g., numeric data, textual data and graphical data) require processing according to substantially different methods and algorithms. Therefore, the Applicants respectfully submit that it would not be obvious to amend the classification score disclosed by Neal with the Support Vector Machine (SVM) classifier disclosed by Toyama. Amendment 10/2/2007, pp. 17-18.

One of ordinary skill in the art at the time of the claimed invention would know that the search of Neal and the classification of Toyama are based on disparate data types. One of ordinary skill in the art at the time of the claimed invention would also know that different types of data (e.g., numeric data, textual data and graphical data) require processing according to substantially different methods and algorithms. The latter fact teaches away from amending the classification score disclosed by Neal with the Support Vector Machine (SVM) classifier disclosed by Toyama. Thus, the Applicants respectfully submit that it would not be obvious to one of ordinary skill in the art at the time of the claimed invention to combine Neal with Toyama in the manner advanced by the Examiner.

For at least these reasons, claim 1 is believed allowable. The Applicants respectfully request reconsideration and allowance of claim 1.

Claim 6

Claim 6 is dependent on claim 1 and recites, "The method of claim 1, wherein the multimedia content comprises one or more types selected from the group consisting of: audio, video, Web pages, time series data, sensor data, and XML data."

In rejecting claim 6, as presented in the Amendment filed May 1, 2008, the Examiner alleges,

In regards to dependent claim 6, Stubler discloses *wherein the multimedia content comprises one or more types selected from the group consisting of: audio, video, Web pages, time series data, surveillance data, sensor data, and XML data* (col. 3 line 46 – col. 4 line 12; Stubler discloses images type multimedia. Using the broadest reasonable interpretation, the Examiner concludes surveillance data to include but not be limited to images.). OA, pp. 6.

The Applicants respectfully submit that claim 6 does not currently recite surveillance data. Therefore, the question of whether Stubler discloses surveillance data is moot in regards to claim 6 as currently presented.

For at least these reasons, claim 6 is believed allowable. The Applicants respectfully request reconsideration and allowance of claim 6.

Claims 10 and 23

Claims 10 and 23 are dependent on and further limit claim 1. Since claim 1 is believed allowable, claims 10 and 23 are also believed allowable for at least the same reasons as claim 1.

Claims 2 and 5

Claims 2 and 5 are dependent on and further limit claim 1. Since claim 1 is believed allowable, claims 2 and 5 are also believed allowable for at least the same reasons as claim 1.

Claims 7-8, 11, 13-15 and 29-31

Claims 7-8, 11, 13-15 and 29-31 are dependent on and further limit claim 1. Since claim 1 is believed allowable, claims 7-8, 11, 13-15 and 29-31 are also believed allowable for at least the same reasons as claim 1.

Claims 9 and 12

Claims 9 and 12 are dependent on and further limit claim 1. Since claim 1 is believed allowable, claims 9 and 12 are also believed allowable for at least the same reasons as claim 1.

NEW CLAIMS:

Claim 32

By this Amendment, claim 32 is added.

Claim 6, as presented in the Amendment filed May 1, 2008, recited, "The method of claim 1, wherein the multimedia content comprises one or more types selected from the group consisting of: audio, video, Web pages, time series data, surveillance data, sensor data, and XML data."

Claim 32 recites, "The method of claim 1, wherein the multimedia content comprises surveillance data." Thus, claim 32 recites subject matter present in claim 6 as previously presented.

In rejecting claim 6, as presented in the Amendment filed May 1, 2008, the Examiner alleges,

In regards to dependent claim 6, Stubler discloses *wherein the multimedia content comprises one or more types selected from the group consisting of: audio, video, Web pages, time series data, surveillance data, sensor data, and XML data* (col. 3 line 46 – col. 4 line 12; Stubler discloses images type multimedia. Using the broadest reasonable interpretation, the Examiner concludes surveillance data to include but not be limited to images.). OA, pp. 6.

The Applicants respectfully submit that even assuming *arguendo* that surveillance data includes but is not limited to images, it does not follow that images are equivalent to surveillance data. To the contrary, a specific image is not necessarily equivalent to surveillance data. For example, if an image was manually created by an artist, the image is clearly not surveillance data but is nonetheless an image. Therefore, even assuming *arguendo* that Stubler discloses images, it does not inherently follow that the images thus disclosed are equivalent to surveillance data. Accordingly, even if Stubler discloses images, such a disclosure cannot teach that the multimedia content comprises surveillance data as required by claim 32.

Moreover, the passage of Stubler cited by the Examiner states,

This invention describes a method to assign captions or semantic labels to several images simultaneously based upon low-level objectively measurable similarities between the images. The advantage of this assignment is that it happens either automatically, or with limited user interaction, thereby decreasing the effort required of the user. A further advantage is that these semantic labels can subsequently be used as powerful tools for the storage, retrieval, and management of digital images within a digital image database environment. In a preferred

embodiment, such automatic assessment will be provided at an image region level. While the measurements and region identification is derived from low-level features, the processing (including knowledge based operations) may yield a region with a mixture of high-level feature description (clear sky, cloudy sky, mixed sky) and low-level features (color representation, area coverage, location). Similarities between such regions would be calculated on the basis of a combination of high-level and low-level features.

This invention uses one or more objectively measurable low-level features or derived higher level features that are found within the image regions, or are associated with the image regions, to find similarities between them. Similar unlabeled image regions are presented to the user so that the user may apply a caption or semantic label to all of the regions simultaneously. An association between the semantic label and the underlying similar feature(s) is maintained to facilitate the subsequent automatic extension of these labels based upon similar features. If images are being added to an existing database and similarities are found between (unlabeled) regions of the new images and labeled regions within the existing database, these labels may be extended to the unlabeled set. This extension may happen automatically or with some verification by the user. Stubler, col. 3, ll. 46 - col. 4, ll. 12.

The Applicants respectfully submit that the cited passage is devoid of any teaching or suggestion that the images recited by the passage comprise surveillance data. More generally, the cited passage fails to teach or suggest surveillance data.

For at least these reasons, claim 32 is believed allowable. The Applicants respectfully request allowance of claim 32.

Claim 33

By this Amendment, claim 33 is added. Claim 33 recites the subject matter of claim 1 as presented in the Amendment filed October 2, 2007.

Claim 33 further includes an additional limitation which recites, "wherein the at least one criterion is measured according to a model." Support for this limitation is found in at least page 7, lines 7-8 (paragraph [0028]) of the specification, which states, "This ambiguity measurement may be accomplished by means of a number of mechanisms involving internal or external models [302]"

Claim 33 further includes an additional limitation which recites, "using said input annotations as training data to update the model." Support for this limitation is found in at least page 8, lines 7-9 (paragraph [0034]) of the specification, which states, "The verified annotations are then propagated [802], which can be further used as training data to update the models if desired."

For at least these reasons, and the reasons discussed for claim 1, claim 33 is believed allowable. The Applicants respectfully request allowance of claim 33.

Claim 34

By this Amendment, claim 34 is added. Claim 34 is dependent on claim 33 and recites, "The method of claim 33, further comprising repeating the step of selecting examples of multimedia content, wherein the repeated step of selecting examples of multimedia content is performed according to the model updated by using said input annotations as training data."

Support for this limitation is found in at least Figure 7 and page 8, lines 17-22 (paragraph [0036]) of the specification. Page 8, lines 17-22 of the specification state,

It is also possible to update the representation of the examples [302] in the process of active selection of

examples for further disambiguation. This is illustrated in FIG. 7. Since there is continuous user interaction, the representations can be updated interactively and sequentially after each new user interaction to further disambiguate the representation and strengthen the confidence in propagation. The feedback loop [302] to [101] to [501] to [901] depicts this iterative update of the system representation just mentioned.

For at least these reasons, and the reasons discussed for claim 1, claim 34 is believed allowable. The Applicants respectfully request allowance of claim 34.

Claim 35

By this Amendment, claim 35 is added. Claim 35 is dependent on claim 33 and recites, "The method of claim 33, wherein the model uses at least one feature representation."

Support for this limitation is found in at least page 7, line 12 (paragraph [0029]) of the specification, which states, "The models may use a number of different feature representations [302]"

For at least these reasons, and the reasons discussed for claim 33, claim 35 is believed allowable. The Applicants respectfully request allowance of claim 35.

Claim 36

By this Amendment, claim 36 is added. Claim 36 is dependent on claim 35 and recites, "The method of claim 35, wherein the at least one feature representation comprises a texture."

Support for this limitation is found in at least page 7, lines 12-13 (paragraph [0029]) of the specification, which states, "The models may use a number of different feature representations [302], such as the color, shape, and texture for images and videos"

For at least these reasons, and the reasons discussed for claim 33, claim 36 is believed allowable. The Applicants respectfully request allowance of claim 36.

Claim 37

By this Amendment, claim 37 is added. Claim 37 is dependent on claim 35 and recites, "The method of claim 35, wherein the at least one feature representation comprises a cepstral coefficient."

Support for this limitation is found in at least page 7, lines 12-14 (paragraph [0029]) of the specification, which states, "The models may use a number of different feature representations [302], such as the color, shape, and texture for images and videos, or other standard or nonstandard features, e.g., the cepstral coefficient, zero crossings, etc., for audio."

For at least these reasons, and the reasons discussed for claim 33, claim 37 is believed allowable. The Applicants respectfully request allowance of claim 37.

Claim 38

By this Amendment, claim 38 is added. Claim 38 is dependent on claim 35 and recites, "The method of claim 35,

wherein the at least one feature representation comprises zero crossings."

Support for this limitation is found in at least page 7, lines 12-14 (paragraph [0029]) of the specification, which states, "The models may use a number of different feature representations [302], such as the color, shape, and texture for images and videos, or other standard or nonstandard features, e.g., the cepstral coefficient, zero crossings, etc., for audio."

For at least these reasons, and the reasons discussed for claim 33, claim 38 is believed allowable. The Applicants respectfully request allowance of claim 38.

Claim 39

By this Amendment, claim 39 is added. Claim 39 is dependent on claim 33 and recites, "The method of claim 33, further comprising performing user verification when the step of propagating said input annotations has been performed with least confidence."

Support for this limitation is found in at least page 8, lines 9-10 (paragraph [0034]) of the specification, which states, "User verification can be performed for those examples in which the propagation has been done with the least confidence."

For at least these reasons, and the reasons discussed for claim 33, claim 39 is believed allowable. The Applicants respectfully request allowance of claim 39.

Claim 40

By this Amendment, claim 40 is added. Claim 40 is dependent on claim 33 and recites, "The method of claim 33, wherein the at least one criterion includes a confidence level of the selected examples, the confidence level being inversely proportional to a distance of a new feature of the selected examples from a separating hyperplane in an induced higher dimensional feature space."

Support for this limitation is found in at least page 14, lines 6-9 (paragraph [0072]) of the specification, which states, "Each unseen example is classified by the SVM classifier and the confidence [301] in classification is taken to be inversely proportional to the distance of the new feature from the separating hyperplane in the induced higher dimensional feature space."

For at least these reasons, and the reasons discussed for claim 33, claim 40 is believed allowable. The Applicants respectfully request allowance of claim 40.

Claim 41

By this Amendment, claim 41 is added. Claim 41 recites the subject matter of claim 1 as presented in the Amendment filed October 2, 2007.

Claim 41 further includes an additional limitation which recites, "wherein a rectangular region of an image is associated with at least one of said input annotations." Support for this limitation is found in at least page 12, lines 26-27 (paragraph [0062]) of the specification, which states, "The Region Annotation pop-up window shown in FIG. 13 allows the author to associate a rectangular region with a labeled text annotation."

Further support for this limitation is found in Figure 13 and page 12, line 26 through page 13, line 26 of the specification.

For at least these reasons, and the reasons discussed for claim 1, claim 41 is believed allowable. The Applicants respectfully request allowance of claim 41.

Claim 42

By this Amendment, claim 42 is added. Claim 42 is dependent on claim 41 and recites, "The method of claim 41, wherein the at least one criterion includes a confidence level of the selected examples, the confidence level being inversely proportional to a distance of a new feature of the selected examples from a separating hyperplane in an induced higher dimensional feature space."

Support for this limitation is found in at least page 14, lines 6-9 (paragraph [0072]) of the specification, which states, "Each unseen example is classified by the SVM classifier and the confidence [301] in classification is taken to be inversely proportional to the distance of the new feature from the separating hyperplane in the induced higher dimensional feature space."

For at least these reasons, and the reasons discussed for claim 1, claim 42 is believed allowable. The Applicants respectfully request allowance of claim 42.

CONCLUSION

In view of the forgoing remarks, it is respectfully submitted that this case is now in condition for allowance and such action is respectfully requested. If any points remain at

issue that the Examiner feels could best be resolved by a telephone interview, the Examiner is urged to contact the attorney below.

No fee is believed due with this Amendment, however, should such a fee be required please charge Deposit Account 50-0510 the required fee. Should any extensions of time be required, please consider this a petition thereof and charge Deposit Account 50-0510 the required fee.

Dated: October 8, 2008

Respectfully submitted,

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